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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,503	07/25/2003	Kenneth J Bures	OPN-006	1502

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EXAMINER

VERBITSKY, GAIL KAPLAN

ART UNIT PAPER NUMBER

2859

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/604,503

Applicant(s)

BURES ET AL.

Examiner

Gail Verbitsky

Art Unit

2859

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 October 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,6-11 and 15-28 is/are pending in the application.
- 4a) Of the above claim(s) 8-11, 16-20 and 22-27 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 28 is/are allowed.
- 6) ☒ Claim(s) 1 and 21 is/are rejected.
- 7) ☒ Claim(s) 6 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>09/01/2004</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

#### **Restriction by Original Presentation**

1. Newly submitted claims 22-27 are dependent on claim 10 which is now, as amended directed to generating strength related voltage signal, not temperature measurement as in the originally filed invention.

Dependent claims 8-9 in combination with an independent claim 1, as amended, are now directed to time delay (not temperature) measurement.

a) the originally claimed invention, i.e., claims 1-21, was directed to a device and a method for temperature measurement and compensation.

b) the invention stated in new claims 22-27 and amended claim 10, (and dependent claims 15-20), is directed to a strength related voltage signal, not temperature measurement as in the originally filed invention.

c) the invention stated in claims 8-9 in combination with an independent claim 1, as amended, are now directed to time delay (not temperature) measurement.

d) the originally claimed invention is classified in class 374, subclass 183.

e) the invention stated in new claims 22-27 and 10, 15-20 is classified in class 73.

f) the invention stated in newly amended claims 1, 8-9 is classified in class 359.

Since Applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for further prosecution on the merits. Accordingly, claims 10, 15-20, 22-27 and claims 8-9 are withdrawn from consideration as being directed to non-elected invention since they

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are no longer directed to temperature measurement/ compensation. See 37 CFR and MPEP 821.03.

### ***Claim Objections***

2. Claims 7 and are finally objected to because of the following informalities:

Claim 7: "the measured temperature" in line 2 lacks antecedent basis.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 7 and 21 are finally rejected under 35 U.S.C. 103(a) as being unpatentable over in view of Onaka et al. (U.S. 20020101633) [hereinafter Onaka] in view of Olds (U.S. 4644297).

Onaka discloses (paragraph [0031]) a device in the field of applicant's endeavor wherein an AOTF is provided with surface substrate on which the AOTF is formed. The AOTF is provided with a SAW resonator near the AOTF, so as to control/ obtain a temperature of the AOTF.

Onaka does not explicitly teach all the limitations of claim 1, including obtaining a time delay. Onaka does not explicitly teach a frequency is being chosen to maintain the phase matching criteria of the acousto-optic device.

Olds discloses a SAW device having an input (first SAW transducer) and an output (second SAW transducer) positioned on a substrate, the device also has a delay in the wave propagating measurement circuit, wherein the delay is functionally related to temperature. Olds teaches to increase or decrease (change) VCO 17 so as to change the output of the SAW caused by temperature change, so as to compensate for the temperature change. Olds teaches to change/ regulate/ adjust or keep the frequency applied to the SAW constant, so as to compensate for the temperature change. This would imply that the frequency is regulated to maintain proper phase-matching criteria of the substrate whose temperature is being controlled.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by Onaka, so as to have SAWs, as taught by Olds, in order to allow the operator to obtain temperature and compensate for the temperature, so as to provide a temperature independent data, in order to have more accurate device.

With respect to the particular frequency chosen to apply to the SAW, as stated in claim 1: The particular frequency value, absent any criticality, is only considered to be the "optimum" frequency value used by Onaka and Olds that a person having ordinary skill in the art at the time the invention was made would have been able to determine using routine experimentation based, among other things, on the desired accuracy of the AOTF. **See In re Boesch, 205 USPQ 215 (CCPA 1980).**

The method steps will be met during the normal operation of the device stated above.

***Allowable Subject Matter***

5. Claims 6-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 28 is allowed.

***Response to Arguments***

6. Applicant's arguments with respect to claims 1, 6-11, 15-28 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

Any inquiry concerning this communication should be directed to the Examiner Verbitsky who can be reached at (571) 272-2253 Monday through Friday 8:00 to 4:00 ET.

GKV

Gail Verbitsky  
Primary Patent Examiner, TC 2800



January 07, 2005